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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/656,325	09/06/2000	Steven D. Nelson	14073US01	9079

23446 7590 10/13/2006

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EXAMINER

CHAMBERS, TROY

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 10/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

### DETAILED ACTION

1. This is a follow-up letter to the interview held between the Examiner, the applicant Steve Nelson and his representative Michael Oblon on 03 October 2006.
2. Applicant and his representative provided an explanation of how the device operated and, specifically, what was meant by “analog condition” and “firing condition”.<sup>1</sup> However, applicant’s arguments do not take the place of facts. The applicant’s next response should refer to the specification to identify what is meant by an “analog condition” and a “firing condition”. “Analog condition” is mentioned in the specification as follows:
  - In another aspect of a preferred embodiment, both digital and analog fire control conditions must be met before a pyrotechnic device can be fired.
  - In a preferred embodiment, for an armed pyrotechnic device to fire, it must receive a digital firing command and sense proper analog conditions on the cable network 204.
  - That is, both digital and analog fire control conditions must be met before a pyrotechnic device can be fired.
  - In step 412, at or shortly before transmitting a firing signal to one or more armed pyrotechnic devices 202, the analog condition of the bus is altered to a firing condition.
  - Preferably, the bus controller 206 alters the analog condition of the cable network 204 to a firing condition. However, other devices electrically connected to the pyrotechnic system 200 may be used to alter the analog condition of the cable network 204 to a firing condition.
  - The analog condition of the cable network 204 is preferably a characteristic of the electrical power transmitted across that cable network 204. By way of example and not

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<sup>1</sup> Applicant is reminded that his next response should include a discussion of the arguments set forth in the interview combined with support from the specification.

limitation, the analog condition of the cable network 204 may be voltage level on the cable network 204, modulation depth, or frequency. However, other analog conditions may be used if desired. Preferably, the bus interface 312 senses the analog condition of the cable network 312.

- When a particular logic device 300 receives the firing signal, it communicates with the bus interface 312 to determine whether the bus interface 312 senses the analog condition corresponding to the firing command.
- By requiring the pyrotechnic device 202 to sense both a digital firing signal and a corresponding analog bus condition before firing the initiator 304, safety is enhanced.
- For example, if the logic device 300 erroneously reads a digital firing signal at a time when the pyrotechnic device 202 is not armed, it cannot fire the initiator 304, because the analog bus condition will not correspond to the condition required for firing.
- If the bus interface 312 senses the analog condition corresponding to the firing command, preferably the logic device 300 then operates the initiator 304.

3. Making reference to the specification for support, the applicant's response should specifically and distinctly answer the following:

- a. What is an analog condition?
- b. How is it altered?
- c. What does the condition look like before/after alteration?
- d. What is the firing condition?

4. In the interview, applicant stated that the voltage is lowered and used as a signal for the logic device. While this "lowering" of voltage would qualify as an alteration of an analog condition, it must be disclosed in the specification as argued.

5. With respect to the objection to the drawings, the applicant suggested adding a box to element 302 indicating its position within the pyrotechnic device. Applicant is

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reminded to show support for said addition. Also, the plurality of boxes may not show how or in what manner these particular elements work to achieve the desired function. For these types of devices, circuit diagrams are provided instead. Boxes are used in connection with elements that are known to be conventional in the art.

6. With respect to the rejections under 35 USC 102/103, the applicant is reminded to specifically and distinctly provide the differences between the claimed invention and the cited prior art. While the interview was beneficial to the Examiner, all arguments must be supported by the written specification.

7. So that the instant application can proceed to issue as soon as possible, applicant and/or his representative should disclose whether they are aware of any prior art reference that discloses the subject matter alleged to be absent from Boucher. For example, is the applicant aware of any prior art wherein a digital arming command (with unique identifier) is transmitted, an analog condition is altered and a digital firing command (with unique identifier) is transmitted?

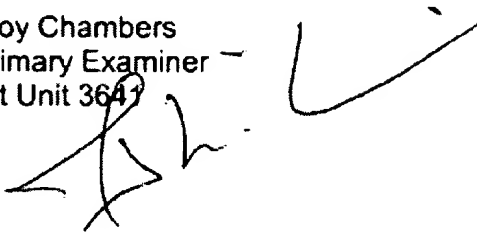
### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Troy Chambers whose telephone number is (571) 272-6874 between the hours of 7:00 a.m. to 3:30 p.m., M-F. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Carone, can be reached at (571) 272-6873.

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Troy Chambers  
Primary Examiner  
Art Unit 3641

A handwritten signature in black ink, appearing to read 'Troy Chambers', is written over the printed name and title. To the right of the signature is a large, stylized checkmark.

TC  
04 October 2006